Construction

Sika® MonoTop®-910 N

Bonding Primer and Reinforcement Corrosion Protection

Product Description	Sika® MonoTop®-910 N is a cementitious, polymer modified one-component coating material containing silica fume used as bonding primer and reinforcement corrosion protection for reinforcement. Sika® MonoTop®-910 N meets the requirement of EN 1504-7
Uses	■ Suitable for control of anodic areas (Principle 11, method 11.1 of EN 1504-9) ■ Suitable as a bonding primer on concrete and mortar ■ Suitable in concrete repair as reinforcement corrosion protection
Characteristics / Advantages	■ Easy to mix, just add water ■ User-friendly application ■ Excellent adhesion to concrete and steel ■ Good resistance to water and chloride penetration ■ Good mechanical strengths ■ Can be brushed on or spray applied

Product Data

Form

Appearance / Colour	grey powder
Packaging	4 kg pail

Storage

Storage Conditions / Shelf-Life	12 months from date of production if stored properly in undamaged original sealed packaging, in dry cooled conditions between +5°C and +35°C.

Technical Data

Chemical Base	Portland cement, silica fume, re-dispersible polymer powder, selected aggregates and additives
Density: (EN 1290)	Fresh mortar density: ~2.0 kg/l
Carbon dioxide diffusion resistance:	~200 μCO_2
Water vapour diffusion resistance	~80 μH_2O

Coefficient of Thermal Expansion	15 x 10^{-6} m/(m x °C)
Chloride Ion Content (EN 1015-17)	< 0.01%

Mechanical / Physical Properties

Compressive Strength (EN 196-1)	~45 - 55 N/mm² after 28 days
Tensile Strength (EN 196-1)	~5.5 - 7.5 N/mm² after 28 days
Adhesive Bond	~2.0 - 3.0 N/mm² after 28 days
Frost de-icing salt resistance (SIA 262/1)	High
Elastic Modulus	~20,000 N/mm^2 (static)

System Information

System Structures

Sika® MonoTop®-910 N is part of the Sika® Repair System complying with the relevant part of European Standard EN 1504 and comprising of :

Bonding primer and reinforcement corrosion protection

- Sika® MonoTop® -910 N: Normal use

Repair mortars:

- Sika® MonoTop®-352 N: R3 light weight repair mortar
- Sika® MonoTop®-412 N: R4 repair mortar
- Sika® MonoTop® -723 N: R3 Pore sealer and levelling mortar
- Sika® MonoTop®-438 R: Pourable/castable repair mortar

Application Details

Consumption

1 litre of fresh primer requires approximately 1.65 kg of dry mortar mix

Bonding Primer

This depends on the substrate roughness and thickness of layer applied. As a guide, ~1.5 – 2.0 kg of powder per m² per mm thick.

Reinforcement Corrosion Protection

As a guide, ~2.0 kg of powder per m^2 for 1mm layer thickness (in total min 2 layers)

Substrate quality

Concrete

The concrete shall be free from dust, loose material, surface contamination and materials which reduce bond or prevent suction or wetting by repair materials.

Steel reinforcement

Rust, scale, mortar, concrete, dust and other loose and deleterious material which reduces bond or contributes to corrosion shall be removed

Substrate Preparation

Concrete:

Delaminated, weak, damaged and deteriorated concrete and where necessary sound concrete shall be removed by suitable means.

The surface shall be thoroughly pre-wetted and not be allowed to dry before application of the bonding primer. The surface shall achieve a dark matt appearance without glistening, and surface pores and pits shall not contain water.

Steel reinforcement:

Surfaces shall be prepared using abrasive blast cleaning techniques or high pressure water-blasting.

Application Conditions / Limits

Substrate Temperature	min. +5°C; max. +30°C
Ambient Temperature	min. +5°C; max. +30°C

Application Instructions

Mixing Ratio	*For brush application* 210ml per 1kg Sika® MonoTop®-910 N *for spraying application* 200ml per 1kg of Sika® MonoTop®-910 N
Mixing	Sika® MonoTop®-910 N can be mixed with a low speed (<500 rpm) electric drill mixer. In small quantity, Sika MonoTop-910 N can also be mixed by hand. Pour the water in the correct proportion into a suitable mixing container. While stirring slowly, add the powder to the water. Mixed thoroughly to the required consistency (brushable non-dripping consistency).
Application Method	***As a bonding primer*** Apply by brush, roller or suitable spraying equipment to the prepared (pre-wetted) substrate. To achieve a good bond, Sika® MonoTop®-910 N must be applied well into the substrate, filling all unevenness. Subsequent repair mortar must be applied while the bonding primer is still wet. ***As reinforcement protection*** Apply first layer approx. 1.0 mm thick, using medium hard brush or spray gun to cleaned reinforcement. When first coat is hard to the finger nail, for guidance~4 to 5 hours at 20°C, apply second layer approximately 1.0 mm thick.
Cleaning of Tools	Clean all tools and application equipment with water immediately after use. Hardened material can only be mechanically removed.
Pot-Life	~90-120 minutes at +23°C
Notes on Application / Limits	■ Refer to the Method Statement for Concrete Repair using Sika® MonoTop® system for more information regarding substrate preparation, or refer to the recommendations provided in EN 1504-10 ■ Avoid application in direct sun and/or strong wind and/or rain. ■ Do not add water over recommended dosage. ■ Apply only to sound, prepared substrates.

Curing Details

Curing Treatment	Protect the fresh mortar from rain while the material has not yet set.
Value Base	All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.
Local Restriction	Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.
Health and Safety Information	For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.
Important notes	Residues of material must be removed according to local regulations. Fully cured material can be disposed of as household waste under agreement with the responsible local authorities. Detailed health and safety information as well as detailed precautionary measures e.g. physical, toxicological and ecological data can be obtained from the safety data sheet.

Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request.

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